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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,913	11/05/2003	Sheng-Jung Kuo	LITP0007USA	2912

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NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION  
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EXAMINER
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NGUYEN, CUONG H

ART UNIT	PAPER NUMBER
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3661

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/10/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/605,913	<b>Applicant(s)</b> KUO ET AL.	
	<b>Examiner</b> CUONG H. NGUYEN	<b>Art Unit</b> 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 4/14/2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **Status of the claims**

1. Claims 1-10 are currently pending.

### ***Priority***

2. This application has a Taiwan (application 092120175) priority dated Jul. 24, 2003.

### ***Drawings***

3. This application has been filed with 3 sheets of formal drawings; there is no structural drawing for claimed subject matter (i.e., a mobile communication device – Fig.1 is prior art, Figs 2-3 are very high level blocks), corrections are required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Alexander, Jr. (US Pat. 6,083,353).

A. As to claim 1: Alexander, Jr. teaches a mobile communication device for display direction information, comprising: a control unit (see Alexander, Jr. Fig.4, and claim 7),; a memory, connected to the control unit and having a program/(computer instructions) for calculating direction information; an output display (see Alexander, Jr. Fig.7 that uses a “DISPLAY DEVICE DRIVER”, and “LCD display module”), connected to the control unit and; and a digital compass (see Alexander, Jr. Fig.4 indicates control links from a control module to “a digital compass”, and claim 7), inherently connected to the control

unit; wherein the control unit would calculate direction information by the program stored in the memory (see Alexander, Jr. Fig.1 "2 MB ROM"), and the direction information is transmitted to an output device via a Bus.

The cited prior art inherently teaches a device having above claimed features.

B. As to claim 2: Alexander, Jr. also teaches that the memory can be a read-only memory (ROM) (see Alexander, Jr. Fig.1 and "*In a specific embodiment, referring to FIG. 1, the GDM of the subject invention can run MICROWARE'S OS-9 (OS-9 Version 3.0 Documentation, 1995 Microware Systems Corp., Des Moines, Iowa Dibble, Peter (1994) Insights, An Advanced Programmers Guide to OS-9 3.0 Edition, Microware Systems Corp., Des Moines, Iowa; Astec DC to DC converter, Astec America, Inc., Oceanside, Calif.; and Dayan, Paul S. (1992) The OS-9 Guru: The Facts, Galactic Industrial Limited, Durham, UK) embedded operating system from ROM. The heart of the computer is a Gespac SBSG8-10 50 (Gespac GWSSSS-10 Low Power CMOS MC 8340 Single Board System, 1995, Gespac Inc., Mesa, Ariz.; and Gespac Quad Asynchronous Serial Interfaces XSBSIO-2, 1995, GESPAC Inc., Mesa, AZ) with two megabytes of ROM and one megabyte of static RAM. It has a MOTOROLA 68340 CMOS low power processor 1 with six serial ports. See FIG. 3*").

C. As to claim 3: Alexander, Jr. also discloses that the output device can be a thin-film transistor (TFT) display (see Alexander, Jr. col. 11, lines 64-67).

5. Claims 5, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Donahue et al. (US Pat. 5,526,022).

A. As to claim 5: Donahue et al. teach a mobile communication device for display direction information, comprising: a control unit; a memory (see Donahue et al., inherently included in Fig.1), connected to the control unit in COMPUTER 14, and inherently having a program for calculating the direction information; an output display (i.e., VIDEO 40/AUDIO 42 of FIG.1), connected to the control unit and; and a magnetic sensor (see Donahue et al., claim 1), connected to the control unit and converting the

strength of the Earth's magnetic field (see Donahue et al., claim 1); and a tilt sensor (see Donahue et al., claim 1), connected to the magnetic sensor and measuring the orientation (see Donahue et al., claim 1), and sending the orientation to the magnetic sensor (see Donahue et al., the abstract, col. 2 lines 49-52, col. 8 lines 24-26, and claim 1); wherein the control unit calculates the direction information by the program stored in the memory, and the direction information is transmitted by the magnetic sensor to the output device.

B. As to claim 8: Donahue et al. also teach that the magnetic sensor can be called a three-axis magnetic sensor (see Donahue et al., col. 8 lines 1-11).

C. As to claim 9: Donahue et al. also teach that the magnetic sensor can be called a three-axis magnetic sensor (see Donahue et al., the abstract, col. 2 lines 26-28, and col. 5 lines 65-67).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 4, 6-7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, Jr. (US Pat. 6,083,353), in view of Donahue et al. (US Pat. 5,526,022).

The rationales and references for rejection of claims 1, and 5 are incorporated.

A. Alexander, Jr. does not explicitly disclose an input device, a microphone, a speaker, a radio unit and a power source, and the control unit for controlling the input device, the microphone, the speaker and the power source.

However, these components are suggested by Donahue et al. as I/O components. Since claim 4 comprises very well known components for interactive communications between a user and a device (i.e., comprising I/O devices: a speaker, a radio unit (i.e., an RF transmitter and an RF receiver), and a power source, and the control unit for controlling the input device (i.e., a microprocessor/controller) a microphone, the speaker, and the power source.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Alexander, Jr., and Donahue et al. to disclose these I/O components because they are necessary components for interactive uses between a user and Donahue et al.'s source-less orientation sensor.

B. As to dependent claim 6: The rationales and references for rejection of claims 1, and 5 are incorporated.

Since claim 6 comprises a memory, that memory **can be any type of memory** (for example, a ROM); therefore, prior art already teach of using a ROM for a memory as claimed.

A motivation of using ROM is its well-known reliability in many electronic applications and low costs in markets as used in Alexander, Jr. invention.

C. As to dependent claim 7: The rationales and references for rejection of claims 1, and 5 are incorporated.

- Alexander, Jr. already suggests that an output device can be a thin-film transistor (TFT) display - since claim 7 comprises an output device, that output device can be a thin-film transistor display; therefore, prior art as Alexander, Jr. already suggests about using TFT for displaying electronic signals as claimed for an advantage of light weight, and available components on markets.

### ***Conclusion***

7. Claims 1-10 are not patentable.

8. The prior art made of record, which are listed in PTO-892, and not relied upon are considered pertinent to applicant's disclosure.

### **9. Remark:**

- Since claim 3 comprises an output device, that output device can be a thin-film transistor display (see 20040032675 - [0182]) Also, the interior rearview mirror system may include ultra small information displays, such as are disclosed in U.S. patent application, Ser. No. 10/225,851, filed Aug. 22, 2002 by Burgner for VEHICLE INFORMATION DISPLAY (Attorney Docket DON01 P-993), the entire disclosure of which is hereby incorporated by reference herein. Such ultra-small displays may be of a transmissive-type or a reflective type. For example, the ultra small liquid crystal display (LCD) available from Kopin Corporation of Taunton, Mass. is a transmissive type. Kopin Corporation utilizes silicon-on-insulator SOI wafers to build transmissive displays. Kopin Corporation's product utilizes thin monocrystal silicon thin film transistors Si-TFT of several microns peeled off from the circuit board to filter out light, and employs a field sequential method, which shows images in accordance with sequentially changing red, green, and blue. The display has a high degree of transmissivity because it does not need

color filters. Image quality depends on color purity of the light emitting diode used as the illumination source.) or a plasma display; therefore, prior art already teach of using TTL or plasma for displaying electronic signals as claimed.

- About using TFT display, see 20040032675 – “[0182] Also, the interior rearview mirror system may include ultra small information displays, such as are disclosed in U.S. patent application, Ser. No. 10/225,851, filed Aug. 22, 2002 by Burgner for VEHICLE INFORMATION DISPLAY (Attorney Docket DON01 P-993), the entire disclosure of which is hereby incorporated by reference herein. Such ultra-small displays may be of a transmissive-type or a reflective type. For example, the ultra small liquid crystal display (LCD) available from Kopin Corporation of Taunton, Mass. is a transmissive type. Kopin Corporation utilizes silicon-on-insulator SOI wafers to build transmissive displays. Kopin Corporation's product utilizes thin monocrystal silicon thin film transistors Si-TFT of several microns peeled off from the circuit board to filter out light, and employs a field sequential method, which shows images in accordance with sequentially changing red, green, and blue. The display has a high degree of transmissivity because it does not need color filters. Image quality depends on color purity of the light emitting diode used as the illumination source) or plasma display”.

- About a tilt sensor can be called a two-axis tilt sensor: In U.S. Pat. No. 5,068,645 (Drumm) a sourceless orientation sensor operates on the principle of refracted light beams. The orientation sensor includes a hollow spherical housing containing a gaseous medium and a gaseous medium, each with a different index of refraction and each filling the housing to the one-half level. The sensor uses light source-photodetector pairs. The light source in the form of an LED and photodetector of each pair are mounted on




opposite sides of the spherical housing. As the housing is rotated, the angle of incidence of the focused light beam from the LED on the boundary layer changes, causing the refraction angle and therefore the light intensity on the photodetector to change. A pair of coplanar light sources and photodetectors are located 45.degree. from the horizontal plane. The output voltage for the photodetectors are compared, and the resultant output indicates the direction and magnitude of tilt. With two pairs of opposing light sources and photodetectors, the direction and magnitude of tilt in two axes can be determined.”).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG H. NGUYEN whose telephone number is 571-272-6759 (email address: cuong.nguyen@uspto.gov). The examiner can normally be reached on 9:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, THOMAS G. BLACK can be reached on 571-272-6956. The Rightfax number for the organization where this application is assigned is 571-273-6759.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Please provide support, with page and line numbers, for any amended or new claim in an effort to help advance prosecution; otherwise any new claim language that is introduced in an amended or new claim may be considered as new matter, especially if the Application is a Jumbo Application.

  
CUONG H. NGUYEN  
Primary Examiner  
Art Unit 3661